

WHAT IS CLAIMED IS:

1. A quartz base material for an optical fiber having a deformed first clad consisting of at least three refractive index area, namely a core, a deformed first clad and a second clad wherein section of the first clad has a deformed shape with at least one linear part and the second clad has a round section, and the main material of the first clad and the second clad are the same.

2. The base material for an optical fiber having a deformed first clad according to claim 1 wherein the shape of the section of the first clad is D-shape, a square shape or a drum shape.

3. The base material for an optical fiber having a deformed first clad according to claim 1 wherein the refractive index of the first clad is distributed so that it may gradually decreases from the center to the periphery.

4. The base material for an optical fiber having a deformed first clad according to claim 2 wherein the refractive index of the first clad is distributed so that it may gradually decreases from the center to the periphery.

5. An optical fiber having a deformed first clad produced by wiredrawing the base material for optical fiber according to claim 1.

6. An optical fiber having a deformed first clad produced by wiredrawing the base material for optical fiber according to claim 2.

7. An optical fiber having a deformed first clad produced by wiredrawing the base material for optical fiber according to claim 3.

8. An optical fiber having a deformed first clad produced by wiredrawing the base material for optical fiber according to claim 4.